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Reactivation of Serratia marcescens mutant endonuclease by Hydroxilamine

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Abstract

© 2018, Pharmainfo Publications. All rights reserved. It is known that histidine plays an important role in the catalytic activity of many nucleases. Performing the function of a common base of these enzymes, it activates the formation of hydroxyl from the water molecule, which, in turn, by attacking the phosphorus atom of the diester bond causes its rupture. It was previously shown that in the endonuclease Serratia marcescens, the replacement of histidine with glycine results in its inactivation. We were able to restore the hydroxylamine activity of the mutant enzyme Serratia marcescens endonuclease, in which histidine in the 89thposition is replaced by glycine.

Keywords

Basal level of expression, Endonuclease, Histidine, Hydroxylamine, Plasmid

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